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# Carninney, St Ives, Cornwall Archaeological Assessment



**Cornwall Archaeological Unit** 

# **Carninney, St Ives, Cornwall**

# **Archaeological Assessment**

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#### **Acknowledgements**

This study was commissioned by Poynton Bradbury Wynter Cole Architects Ltd on behalf of Mr Wilson and carried out by the Cornwall Archaeological Unit, Cornwall Council.

The Project Manager was Colin Buck.

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

#### Freedom of Information Act

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#### **Cover illustration**

The view east across the development area to Carn Brea, including Hayle and St Ives Bay, from Field A.

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HER

MCO

OD

OS

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Abbrev	riations
CAU	Cornwall Archaeological Unit
CRO	Cornwall County Record Office
HE	Heritage England (formerly English Heritage)

Cornwall and the Isles of Scilly Historic Environment Record

Ordnance Datum – height above mean sea level at Newlyn

Monument number in Cornwall HER

Ordnance Survey

## 1 Summary

The Cornwall Archaeological Unit was commissioned to provide an archaeological desk-based study and fieldwork assessment for land at Carninney, Carbis Bay, St Ives. The development area currently comprises fields and agricultural buildings, formerly the compact small-holding of Carninney. The assessment was undertaken in advance of a planning application for a new housing development on the fields and adaptive reuse of the farm buildings. This report covers the likely archaeological implications of the development, and makes recommendations for mitigation.

The development area is located on a historically rural site that includes undesignated 19<sup>th</sup> century agricultural buildings. Some of these appear to date to the early 19<sup>th</sup> century and survive as a coherent group around a yard, in an historic context. These buildings are of historic significance and their survival, scale, setting and character should be considered in any adaptive reuse scheme. The undeveloped fields may have allowed the survival of subsurface archaeology which may be impacted by the proposed development.

This report recommends that a geophysical survey should be undertaken within the fields part of the development, followed by an appropriate level of archaeological mitigation, which might include a watching brief, excavation or further building recording (as recommended by the Senior Development Officer – Phil Copleston).

This report also recommends that an historic building and photographic survey prior to any works could identify significant parts of the farm complex which should be retained to inform the design, if adaptive reuse is to proceed. Archaeological recording should be undertaken during any alterations to the fabric of the farm buildings (in particular Buildings 1, 4, 5 and 6), to aid identification of their construction date, use and for Buildings 1 and 5, to adequately record significant internal features (as recommended by the Senior Development Officer – Phil Copleston).

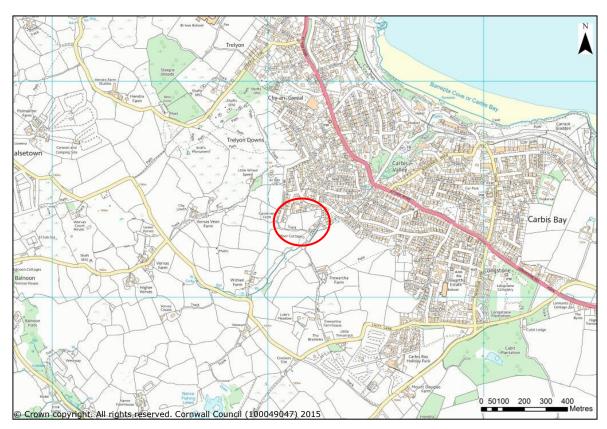


Figure 1: Location of the development area in relation to Carbis Bay.



Figure 2: The location of the development area highlighted by the red outline in relation to the modern housing of Carbis Bay and the rural landscape.

#### 2 Introduction

#### 2.1 Project background

The Cornwall Archaeological Unit was commissioned by PBWC Ltd on behalf of their client Mr Wilson to provide an archaeological desk-based study and fieldwork assessment for land at Carninney, Carbis Bay, St Ives (Figs 1 and 2). The development area currently comprises fields and agricultural buildings. The archaeological assessment was undertaken in advance of a planning application for a housing development on the fields and adaptive reuse of the buildings in order to ascertain the likely archaeological implications of the development.

#### **2.2 Aims**

The aim of the project was to gain a better understanding of the history and archaeological potential of the site.

The site specific aims were:

- To research historic maps, records and other reports pertaining to the site.
- To extract site specific information from historic maps, records and reports to create a written history of the site.
- Where possible determine the extent, condition, nature, character, date and significance of any known or identified archaeological and historic assets.
- To determine the potential for sub-surface archaeological features and to provide mitigation for any site impacts.
- To highlight archaeological and historic assets likely to be affected by the scheme.
- To disseminate the results appropriately.

Given the topographical setting and historic landscape character of the development area, it has the potential to contain important buried archaeological sites and has significant upstanding historic agricultural buildings. The key objective of the assessment was to provide an opportunity to better understand the character and significance of this area by highlighting archaeological and historic assets potentially affected by the development.

#### 2.3 Methods

All recording work was undertaken according to the Chartered Institute for Archaeologists Standards and Guidance for Archaeological Investigation and Recording. Staff followed the CIfA Code of Conduct and Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology. The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

#### 2.3.1 Desk-based assessment

Historical databases and archives were consulted in order to obtain information about the history of the site and its surroundings, and the structures and features recorded within the site boundaries. The main sources consulted were as follows:

- Published sources available in the Cornwall and Scilly HER.
- Historic maps including:
- Norden's Map of Cornwall (printed in 1728 but mapped circa 1600)
- Joel Gascovne's map of Cornwall (1699)
- Thomas Martyn's map of Cornwall (1748)
- OS 1 inch survey (circa 1803)
- Lelant Tithe Map (circa 1840)

- 1st and 2nd Editions of the OS 25 inch maps (circa 1880 and circa 1907).
- Modern maps.
- National Mapping Programme transcripts from aerial photographs.
- Other aerial photographs in the Cornwall and Scilly HER.
- Historic Landscape Characterisation mapping.
- Cornwall and Scilly Historic Buildings, Sites and Monuments Record (HBSMR).
- Information held as GIS themes as part of the Cornwall and Scilly HER.

The historical and landscape context of the site was also considered during this stage of the assessment in order to establish the nature of the heritage assets which are located within the area surrounding the proposed development.

#### 2.3.2 Creation of site archive and report

To include:

- A detailed site description (from desk based resources).
- Completion of the English Heritage/ADS OASIS online archive index.
- Collation of paperwork pertaining to the project.
- An archive report outlining the project results (this report).

## 3 Location, setting and character

The development area is located at approximately 110m OD centred at OS grid reference SW 52120 38350 (Figs 1 and 2). Carbis Bay is approximately 37km west of Truro and the development area is located on its southern periphery. Topographically the site is situated on an east facing slope overlooking Carbis Bay and Hayle. The site consists of three irregularly shaped fields currently in use as pasture and six former agricultural buildings to the west of the fields in varying states of repair.

The topography and existing modern housing define views to and from the site: Views to and from the north are completely restricted by the housing whilst to the south and west the views extend as far as the next ridge-line. Views to and from the east are exceptionally wide ranging, including Carn Brea, Hayle and Godrevy Point (Fig 15).

The bedrock geology in this location consists of microgranite of the Land's End Intrusion. This is igneous bedrock formed 251-359 million years ago in the Permian and Carboniferous Periods in an environment dominated by intrusions of silica-rich magma (British Geological Survey).

Historic Landscape Characterisation designates the site as Anciently Enclosed Land which forms part of Cornwall's agricultural heartland with farming recorded before the  $17^{\text{th}}$  century (Fig 12). This character type has prehistoric or medieval origins with the potential to contain prehistoric monuments and other archaeological remains. The development site is surrounded on its northern and eastern sides by modern housing with farmland on the hillslopes to the south and west.

# 4 Designations

#### 4.1 National

There are no nationally designated heritage assets within the development site.

#### 4.2 Regional/county

There are no regionally designated heritage assets within the development site.

#### 4.3 Local

Carninney Farm (MCO13827) is recorded by the HER as a farmstead of medieval origin. The HER also has a reference to a prehistoric round (MCO7768) located immediately

adjacent to the study area, though no trace of it has been identified (Fig 13). Remains or documented sites on the HER are considered of local or regional significance because of their relative rarity, setting, upstanding evidence or importance to local history but are otherwise undesignated assets.

The western edge of Carninney Farm is part of the St Ives, Carbis Bay and Lelant Area of Great Landscape Value, which is designated and managed at a Local Authority level, and is close to many other specially recognised or protected landscapes (Fig 11).

#### 5 Policies and Guidance

The following section brings together policies and guidance (or extracts from these) used in the development of the assessment and its methodology.

# 5.1 National Planning Policy Framework 2012 (with revisions 2014)

The following paragraphs within the above document frame planning policy relating to the Historic Environment and are germane to this assessment:

- **128.** In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.
- **129**. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.
- **132.** When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II\* listed buildings, grade I and II\* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.
- **133**. Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:
  - the nature of the heritage asset prevents all reasonable uses of the site; and
  - no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
  - conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and
  - the harm or loss is outweighed by the benefit of bringing the site back into use.

- **134**. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.
- **135**. The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
- **139**. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

# 5.2 The conversion of traditional farm buildings: English Heritage guidance to good practice 2012

The following paragraphs form guidance relating to the adaptive reuse of historic buildings within the planning process, as interpreted by English Heritage to be appropriate to farm buildings:

Planning policy quidance: The acceptability of conversion proposals is determined according to the local planning authority's Local Development Framework, which generally takes into account the historical significance, character, layout and location of buildings and their contribution to the landscape. National planning policy also guides local authorities in determining the suitability of buildings for conversion. Planning Policy Guidance Note 15, published by the Department of the Environment and Department of National Heritage, covers issues relating to new uses of historic buildings: 3.9 'Judging the best use is one of the most important and sensitive assessments that local planning authorities and other bodies involved in conservation have to make. It requires balancing the economic viability of possible uses against the effect of any changes they entail in the special architectural and historic interest of the building or area in question. In principle the aim should be to identify the optimum viable use that is compatible with the fabric, interior and setting of the historic building. ...' 3.10 ... 'Policies for development and listed building controls should recognise the need for flexibility where new uses have to be considered to secure a building's survival.'

Planning Policy Statement 7 (Office of the Deputy Prime Minister, 2004a) also gives local authorities quidance on the conversion of farm buildings. The statement encourages a wide range of economic activity in rural areas, particularly where traditional rural-based industries are in decline. Productive reuse is considered preferable to buildings being underused, vacant or derelict: 'The Government's policy is to support the re-use of appropriately located and suitably constructed existing buildings in the countryside where this would meet sustainable development objectives. Re-use for economic development purposes will usually be preferable, but residential conversions may be appropriate in some locations, and for some types of building. Planning authorities should therefore set out in Local Development Documents their policy criteria for permitting the conversion and re-use of buildings in the countryside for economic, residential and any other purposes, including mixed uses'. There is also a need to recognise and design for local distinctiveness. Planning Policy Statement 1 (ODPM 2005) paragraph 34: 'Design which is inappropriate in its context, or which fails to take the opportunities available for improving the character and quality of an area and the way it functions, should not be accepted.' Local Development Documents should include the 'need to preserve, or the desirability of preserving, buildings of historical or architectural importance or interest, or which otherwise contribute to local character' (PPS7, paragraph 17).

#### 5.3 Hedgerow Regulations

Under the current, 1997 Hedgerow Regulations, owners wishing to remove all or part of a hedgerow considered to be historically important must notify the Local Planning Authority (LPA). Criteria determining importance include whether the hedge marks a pre-1850 boundary, and whether it incorporates an archaeological feature. The LPA may issue a hedgerow retention notice prohibiting removal.

## 6 Historical background

#### **Farming**

Studies by Historic England (formerly English Heritage) have divided agricultural development in England into four periods to aid in the identification and dating of farming related heritage assets (Edwards and Lake 2006, 6):

- Pre 1750 This period covers large estate farms of the 12-13<sup>th</sup> centuries, settlement contraction as a result of plagues and famines in the 14<sup>th</sup> century and increased productivity and specialisation from the 17<sup>th</sup> century but farm building survival from this period is rare.
- 1750-1880 This is the most important period of farm development with rising economic productivity and demand from an increasingly urban population. Major reorganisations and substantial improvements were made to farms, elements of which frequently survive and may be seen at Carninney.
- 1880-1940 This was a period of depression within the industry. However new
  hygiene regulations in the inter-war years brought increased use of concrete
  floors and stalls and metal roofing, which can be seen in some buildings at
  Carninney.
- 1940-present A series of Agriculture Acts from 1937 anticipated the need for mechanisation and allowed the intensification of farming. Although Government grants aided the introduction of large multi-purpose sheds in concrete, steel and asbestos that typifies many farming settlements today, these are not present at Carninney.

In Cornwall and the South West dispersed farming settlements generally followed this pattern with pastoral practices dominating much of the region from the 14<sup>th</sup> century and cattle rearing being the dominant process by the 19<sup>th</sup> century. The range of small buildings and internal fittings at Carninney seem to suggest that it also broadly followed these trends in agricultural practice.

#### The study area and its setting

The earliest evidence for human activity around the study area consists of Mesolithic and Neolithic flint scatters and findspots at Treloyan (MCO1606), Trelyon Downs (MCO1608), Hendra (MCO745) and Chyangweal (MCO466). There are multiple possible sites of Bronze Age round barrows such as at Lower Carbence (MCO3069), Trelyon (MCO3711) and Worvas Vean (MCO8927), often indicated by field names recorded on the Tithe Map. A prehistoric field system is visible on aerial photographs of Trevartha (MCO50872) whilst possible sites of Iron Age to Romano-British rounds or enclosures are recorded at Boskerris Wartha (MCO7643), Worvas Vean (MCO8927) and at Carninney (MCO7768). The Tithe Apportionment records 'The Round' for Carninney Farm but no trace of any enclosure has been identified in the vicinity (Fig 13).

The medieval landscape was characterised by small dispersed farming settlements with many possibly also engaged in the nearby fishing and mining industries. There may have been tin streaming in the valley immediately east of the development site during the medieval period or even earlier. Carninney is first recorded as 'Karneny' in 1327 and is a name of Cornish origin, the 'karn' element meaning 'rock pile' or 'tor'. Of the surrounding settlements Chyangweal is first recorded in 1311 as 'Chienguall', Boskerris is recorded as 'Boskevreswartha' in 1314 and Carbis and 'Carbous' in 1391. Carbous,

also Cornish, means 'paved road' or 'causeway' (Padel 1988, 64) and most likely refers to the road between St Erth and St Ives around which the later settlement developed.

According to Bray (1994, 63) the name 'Carbis Bay' came into common use after the Great Western Railway named their station Carbis Bay following the construction of the St Erth to St Ives line in 1877. The later medieval settlements amalgamated through expansion and by the mid 19<sup>th</sup> century there were at least three non-conformist chapels (eg. MCO32904) and a now Grade II Listed Count House (1327780). Providence Mine provided industrial employment and was located between Carbis and Carninney (MCO12462; Figs 7 and 13). It was an amalgam of 18<sup>th</sup> century mines which reformed in 1832 before closing in 1877 and extracted predominantly tin with some copper.

Remaining on the periphery as rural settlements Boskerris Farmhouse and Boskerris Woollas are now Grade II Listed as good examples of late 18<sup>th</sup> century farmhouses (1143336; 1136949; Fig 13). Located to the southeast of the study area they feature coursed granite blocks, sash windows, central doorways and slate roofs. Also of interest, located to the southwest, is Knill's Monument, erected by John Knill, the Mayor of St Ives in 1782 (MCO51878). The Grade II\* Listed granite pyramid was intended by Knill to be his mausoleum, though he died and was buried in London.

Apart from the massive growth of Carbis Bay into residential housing and holiday accommodation, there have been few other changes to the landscape in the modern period.

# Gazetteer of key heritage assets within 500m of the proposed development area (Fig 13)

Reference No.	Site Name	Site Description
Undesignated Sites:		
MCO7768	Carninney Round	Suggested site of Iron Age-Romano British round or enclosure.
MCO13827	Carninney Medieval Settlement	'Karneny' is first recorded in 1327.
MCO12462	Providence Mine	Amalgamation of 18 <sup>th</sup> century mine workings producing copper and tin.
MCO7643	Boskerris Wartha	Suggested site of Iron Age-Romano British round.
MCO13520	Boskerris Early Medieval Settlement	'Boskevreswartha' is first recorded in 1314.
MCO52167	Carbis Water Nonconformist Chapel	Wesleyan Chapel built before 1880.
Listed Buildings:		
1143336	Boskerris Farmhouse	Late 18 <sup>th</sup> century house.
1136949	Boskerris Woollas	Late 18 <sup>th</sup> century house.

#### Fields within the study area

The three fields within the study area are all depicted on the 1840 Lelant Parish Tithe Map (Fig 6). Earlier mapping, such as Gascoyne's 1699 map, Martyn's 1748 map or the 1803 OS map (Figs 3 to 5), does not depict the area in enough detail although as Carninney is first recorded in the medieval period it will have been enclosed and farmed

since at least that period. The Tithe Map shows the three fields in an identical layout compared to modern mapping with the exception that the easternmost field is much larger as it has not yet been truncated by Carninney Lane. At this point the lane only extends through the settlement and along the southern boundary of the fields, at the end of which it terminates (Fig 6). The Tithe Apportionment records these fields as land parcels 128 Long Meadow and 130 Higher Meadow with the eastern field likely to be parcel 127 though the detail is not clear. These were arable fields owned jointly by Lady Bassett and Mrs Sophia Praed, and the lessee and occupier 'Richard's widow Mary'. It appears from notes elsewhere in the apportionment that Sophia Praed was the mother and guardian of William Backwell Praed who is likely to have been the legal owner but was still a minor at the time of the survey.

By 1875 the OS map shows the substantial workings of Providence Mine to the north and the eastern field as truncated by Carninney Lane (Fig 7). The fields had not changed by the 1907 OS mine though the mine was by now disused (Fig 8). The 1932 OS map records more buildings to the southeast of the fields and the considerable expansion of Carbis Bay, which continued throughout the 20<sup>th</sup> century to surround the northern half of the study area (Fig 9).

#### **Buildings**

Small buildings, almost certainly related to domestic and farming activities are likely to have existed on or very near to the present settlement since the medieval period when Carninney is first recorded. The earliest map to show any buildings is the 1840 Tithe Map (Fig 6). When this is overlaid with a modern map it can be seen that three of the buildings on the Tithe approximately align with those standing today (Buildings 1, 5, 6; Figs 19, 27 and 29), whilst two are in the approximate locations but with entirely different layouts (Buildings 3, 4; Figs 22 and 23) and a further two, which were present in 1840, are no longer in existence.

The 1875 OS map shows a layout broadly similar to the modern one with four buildings (Buildings 1, 2, 5 and 6; Figs 7, 19, 21, 22, 27 and 29) appearing to be the same along with a fifth to the east side which is not part of this study. The two other buildings share the same locations but entirely different layouts from the modern arrangement.

The 1907 and 1932 OS maps represent the buildings identically, no significant changes were made in the period between them (Figs 8 and 9). All the buildings, with one major exception, appear to be approximately the same as they currently stand.

This map regression exercise indicates that some of the buildings in their complete state and the origins of the others date to at least the early 19<sup>th</sup> century. Gradual changes have been made to all the buildings until the mid 20<sup>th</sup> century.

#### 7 Results of fieldwork

The study area included three fields and six buildings, which were labelled prior to the fieldwork to aid identification. The fields were labelled from west to east as A, B and C. The buildings were labelled north to south from 1-6 (Fig 10).

#### Field A

Field A is a sub-rectangular area of pasture to the west end of the development area and the furthest upslope (Fig 15). It has a small plateau in the northwest corner but otherwise has a considerable slope down to the east. The boundaries are marked by low, approximately 1m high, Cornish hedges. The northern hedge, bordering the existing housing, has minimal vegetation with grass and low level brambles compared with extensive vegetation above the eastern and southern boundaries where there are shrubs and young trees and significant stone facing surviving underneath. The western boundary adjoining the farmhouses has visible and relatively intact stone facing topped with grass. More mature trees grow on top of the hedge. Views from/into this field are varied, including modern housing and agricultural land west and south of Carninney Farm To the east and northeast the views to/from the site are particularly extensive

including St Ives Bay and Godrevy Lighthouse, Hayle and east to the Carn Brea monument. The archaeological fieldwork did not indicate the presence of visible surviving archaeology on or close to the ground surface however the small plateau with views over St Ives Bay in the north east corner is an area of potential archaeological sub-surface remains.

#### Field B

Field B is irregularly shaped though with straight, right-angled boundaries to the north and west (Fig 16). As with Field A, it is enclosed by Cornish hedge boundaries with increasing mixed vegetation extending from the bank to the north and a considerable growth of brambles on the northeast side. The southern boundary adjacent to existing houses has lost the majority of its bank and has been replaced with a fence. Field B slopes down from west to east and has been most recently used as pasture. Similarly the views are of housing and agricultural land with extensive views eastwards. A walkover did not indicate any surviving archaeology on or close to the ground surface.

#### Field C

Field C is sub-rectangular and considerably lower than the surrounding fields and is flat (Fig 17). It is bounded by Cornish hedges to the north and east though the western and southern boundaries are stone-faced banks necessitated by the change in level. These banks have considerable mixed vegetation growth including small trees whilst the interior has been taken over by brambles, some of which have been recently cleared. From the centre of Field C there are no views of the surrounding landscape beyond the field boundaries or immediately adjacent housing. The possibility of historic mining or quarrying may have impacted upon its former use and evidence of this may survive below the surface, and may be shown by any Geophysical survey.

#### Carninney Farm Buildings (see Fig 10)

#### **Building 1**

Building 1 is a rectangular single-storey barn aligned northeast-southwest (Fig 19). At the northern end is an abutting lean-to of rubble stone, covered in ivy, with a broken wooden stable door on the west elevation and a corrugated metal roof sloping down from the gable end of the main building. The interior is devoid of any features apart from vegetation debris. Concrete had been used on the top of the walls to support the roof.

The main part of Building 1 is constructed of granite rubble with irregular quoining and a steeply pitched corrugated metal roof. The west elevation featured the single wooden door at the southern end with wooden jambs and lintel which was barely 1.5m high. Inserted brick and cement above the doorway suggest it has been altered. At the northern end of this elevation inserted granite blocks, partially obscured by ivy indicated an earlier blocked entrance. The external face of the east elevation bordered private land and could not be inspected.

The interior of the building consists of concrete cattle stalls with space for six livestock in three bays (Fig 20). Iron bars and chains are fixed on each side of the stalls in line with the feed troughs. The stalls are arranged along the east side covering approximately half the width of the building. In the remaining half a gulley ran along the length of the building, built into the concrete floor. There are two small openings above the stalls in the east elevation along with the remains of six wooden name plates, two of which are legible as 'Pansy' and 'Pride'.

#### **Building 2**

Building 2 is a small rectangular structure set back into the hillside to the west (Fig 21). It is constructed of granite rubble with irregular quoining and probably originally had earth bonding though this had been covered by modern mortar repointing. The walls on the north and south sides extend out beyond the roof and are consolidated with concrete built up to meet the roof which is a modern corrugated metal sheet. On the

north side this extra walling appears to be butting up to the building, though parallel with it, and has additional quoining at the east end. The south side appeared similar but is obscured by dense ivy.

The east elevation has a double width doorway with wooden framed windows above. The jamb on the northern side is formed of large granite blocks, resembling quoins, to a height of approximately 1.5m whilst above this and on the southern side the jamb had no distinction from the rubble wall and is consolidated with cement.

The interior of Building 2 had previously been painted white. The floor is uneven granite cobbles covered in building debris, ash and coal dust. The only details are two recesses deliberately constructed opposite each other on the north and south walls approximately 1m above the ground and 0.3m square.

#### **Building 3**

On the mapping Building 3 appears 'L' shape in plan though in reality the eastern extension is not in line with the southern end but a metre offset to the north (Fig 22). This eastern and southern half forms a separate space from the north end with a dividing granite rubble and cement mortar wall between them. The southern half has granite rubble and earth bonded west and south elevations set into the hillside to the west and the eastern extension is modern concrete block. The floor is concrete with a raised perimeter. This part of Building 3 is accessed through wooden double doors in the east elevation.

The northern half is entirely constructed of granite rubble with earth bonding and evidence of white paint on the interior. There is a single wooden door in the east elevation and the floor is obscured by a layer of building debris. The whole of Building 3 is roofed with corrugated metal sheeting though at two different angles to reflect the division of the building.

#### **Building 4**

Building 4 has most recently been in use as a farmhouse and is rectangular, orientated northeast-southwest with three extensions on the east, west and south sides (Fig 23). It is of granite rubble construction with irregular granite quoins and concrete block extensions. The house is two-storey with a corrugated asbestos roof, cement rendered chimneys at the north and south ends, modern guttering and modern PVC windows.

The house can only be accessed through the modern single-storey porch on the east elevation and the door is off-centre to the north. The ground floor consists of two rooms, north and south of the front door and divided by the stairs. The northern room has a small fireplace on the north wall with 1930-50s beige tiled surround and small windows with a slight splay through the east and west walls. The floor is concrete and slightly raised compared to the rest of the house. The southern room has a small mid-20<sup>th</sup> century range style cooker and boiler cupboard set into the southern wall and mounted on granite blocks with an adjacent stone floor visible through the lino floor covering (Fig 24). A square window in a splayed opening on the east wall provided the only natural light source. Adjacent to the boiler cupboard a passageway through the original south wall led to the bathroom in a modern extension. The west wall of the southern room is a modern division of concrete blocks to create a small galley kitchen in the extension on the west side of the house. The lower storey of this extension is the same rubble stonework as the house although the exact relationship is not discernible. Within this extension, on the northwest corner is a large protrusion of granite adjacent to an area covered with paving slabs.

A combination 'T' shaped plan staircase located opposite the front door leads to three rooms on the first floor. A single room at the north end of the house has similar proportions to that directly below it. Of the two rooms at the south end, one is part of a modern extension over the kitchen on the west side. In all the rooms the wall plate is visible and concrete has been added to raise the height of the pitched ceiling and roof. Although the dividing wall between the north and south first floor rooms has been

wallpapered and painted, cracks and peeling paper reveal what appears to be a battened wooden insert placed approximately centrally and suggestive of an earlier doorway (Fig 26). The west room has a beam across the length of the ceiling supporting the base of the pitched roof and the edge of the flat roof of the extension. This flat roof only gave a head height of 1.5m. The walls of this room are concrete block, as demonstrated by the narrow wall thickness around the windows in the west and south walls. From the windows in the east wall of the upper floor, extensive views of Carbis Bay, Hayle and the Carn Brea monument can currently be observed.

Building 4 has a garden area to the east and southeast and although it is much overgrown areas of paving and flower beds are visible. A single staddle stone, most recently used ornamentally, is positioned close to the porch.

#### **Building 5**

Building 5 is an 'L' shaped building formed of a larger rectangular space and a separately accessed small square extension on the west side (Fig 27). Constructed of granite rubble with quoining on the corners, the building has a metal corrugated roof and a single wooden stable door in the east elevation. Leading to this door from the adjacent trackway are granite cobbles and slabs which also seem to have led around the north side of the building to the extension through a now blocked gap in the wall. Building 5 is a low two storey building lit by two narrow slit windows on the ground floor on the east and south elevations and a square window on the upper storey east elevation. In the north elevation there is evidence of a former door or window, now blocked with granite rubble, only just above the present ground level.

The interior of the building retained some features including three wooden livestock stalls with troughs on the south wall (Fig 28). These have an iron bar and chain at each end. In the northwest corner a wooden partition created an area for coal storage, though it could also have previously been a livestock stall. The wood is considerably decayed with holes and slots suggesting the wood had been reused. The floor is formed of very uneven cobbles covered in vegetation debris.

The first floor consists of a wooden platform covering all but the area of the doorway. It is too decayed to access safely and no stair or ladder is present. This floor is only 1.5m above ground level and is covered in wooden planks and debris with evidence for hessian sacking and straw. A second shelf or platform above this floor could be seen along the west wall. Notches in the uneven wall plate are suggestive of former beam slots and alteration of the roof for the corrugated sheeting. Three similar recesses can be observed in the east and west walls though only at approximately 1m above the ground.

#### **Building 6**

Building 6 is an approximately square single-storey building constructed of granite rubble with irregular quoining and a slate roof (Fig 29). There is a single wooden stable door and square window in the north elevation and a small opening in the south wall.

The interior is accessed up a 0.3m high granite step leading to a concrete floor. The interior walls have been whitewashed and possibly previously lime washed. An exposed wooden 'A' frame supports the roof, the tiles having been cement rendered internally (Fig 30). There are no surviving features other than some nails for hanging items from the roof beams and a 0.2m square marble slab on the window sill.

#### 8 Discussion

#### **Fields**

Farming activities and rural settlement are known to have occurred at and around Carninney since at least the medieval period when the settlement is first known to be documented. The more sinuous field boundaries at the southern side of the site, around Field C and in the surrounding landscape may attest to medieval ploughing and strip fields that have since been reorganised as a result of the Enclosure Acts from the 17<sup>th</sup>

century (Fig 13). However, the tithe map name 'Round' may suggest an earlier prehistoric farming settlement.

As the fields within the development area appear relatively unchanged since at least 1840 when they are first mapped in detail on the Tithe Map it is possible that there is the potential for as yet unknown and unrecorded subsurface archaeology (Fig 6). Given the elevated topographical location of the site; sheltered from the west and with extensive views towards the Hayle estuary, archaeology may well survive. In particular the survival of prehistoric evidence is a distinct possibility given the reference to 'carn', within the name, which might be suggestive of a cairn or barrow. Should subsurface archaeology exist within the development area the impacts are likely to be direct, physical and irreversible and could be considered at least moderately negative depending on the extent, survival and importance of any artefacts and features, as revealed by a geophysical survey.

The change in level and atypical boundaries of Field C suggest uses other than pasture, possibly for mining purposes, or as a quarry for stone to build the farm or even as a stock enclosure (Fig 17). Such activities are not mapped, indicating that any quarrying either pre-dates 1840 or the scale was local, for the farm only. The farm buildings are all constructed using distinctive pink-hued, fine-grained granite most likely to be 'micro-granite', a protrusion of which is known in the area around and to the south of Carbis Bay (British Geological Survey). The possibility of a link between the farmyard and the use of its fields potentially adds significance to site.

Although bordered to the north and east by modern housing, the fields are still situated in quite a rural setting which is also historic in origin. The historically rural setting of the fields will be impacted by the proposed development, though the presence of nearby modern housing means that the integrity of this setting is already compromised (Figs 14 and 16).

The field boundaries are marked on the historic maps and therefore date to at least 1840. The good survival of the bank and stone-facing elements of the Cornish Hedge around the majority of the three fields contributes to these boundaries being historically important and subject to the Hedgerow Regulations above. This is particularly important with regard to the southern boundary with Carninney Lane where there is the greatest survival of exterior stone-facing forming the lane, with significant vegetation above.

#### Farm buildings

Building 1 is depicted on the 1840 Tithe Map as a simple rectangular building and though the later OS maps show more detail with the lean-to on the north end, it appears not to have substantially changed since its construction (Figs 6 to 9). The blocked door at the north end, use of concrete stalls and corrugated metal roof suggest the building has experienced change in use or considerable modernisation (Figs 19 and 20). Although concrete and corrugated iron roofing were in use from the early 19<sup>th</sup> century, they were expensive and unusual additions. These alterations are more likely to date from the first half of the 20<sup>th</sup> century when new regulations and the expansion of farming demanded modernisation using materials like concrete that were now much cheaper (Edwards and Lake 2006, 21; EH 2014, 2). The presence of the stalls is indicative of the building being used as a cow house and the low door and minimal ventilation also support this as its use prior to modernisation (Edwards and Lake 2006, 57). Building 1 is one of the earliest buildings on the site with few alterations that reflect changes in practice associated with its use as a cow house. Although undesignated it is of considerable local significance; its simple architectural form contributes to the historic character of the farmstead. Impacts as a result of development, particularly direct, physical impacts are considered likely to be at least moderately negative.

Building 2 is first represented in its current form on the 1875 OS map. However, the earlier Tithe Map shows other buildings in its vicinity and this may account for the

apparently additional walling identified on the north and south sides of the building (Figs 6 to 9 and Fig 21). The large door with windows above and differing jambs are indicative of more recent alteration whilst the cobbled flooring and position of the building set back into the hillside is suggestive of its original appearance, perhaps as a simple form of bank barn. However, no other evidence is present to suggest its original use and its significance lies in its contribution to the late 19<sup>th</sup> century and modern layout and character of the farmyard.

Building 3 is only shown in its present form on modern mapping, dating the eastern extension to after 1932 and this is supported by the use of concrete block (Fig 9). Buildings are shown in the vicinity on the 1840 Tithe Map, however by the 1906 OS map a north-south orientated rectangular building had been established (Figs 6 to 8). Elements of these walls are likely to survive, particularly on the west side which is set into the hillside and appears to be unaltered. No evidence of use remains but the small early 19<sup>th</sup> century structures and later rectangular building indicate that Building 3 was most likely to have been a combination of barns or storage spaces. As with Building 2, the significance of Building 3 is in its overall contribution to the layout and character of the farmyard (Fig 18).

The farmhouse, Building 4, is first depicted in a form similar to the present on the 1875 OS map. Buildings, especially a similarly orientated rectangular structure, are shown in the vicinity on the Tithe Map of 1840 (Figs 6 to 9). The 1875 map shows a western extension to the house supporting the idea that this was original, or at least an early addition, that is also reflected in the use of stone on the lower storey. The concrete blockwork above this indicates that the first floor room on this west side is not original. It is probable that the adjacent room would have occupied the whole southern half of the upper floor. On the east side of the house an extension or enclosure is shown on all the maps from 1875 to 1932 whilst there is a separate building here on the Tithe Map (Figs 6 to 9). No evidence for these is clearly visible though they could conceivably form part of the garden walls, now very overgrown. The position and aspect of the house, as shown on these maps, suggests that it was deliberately intended to face away from the activity within the farmyard and allowed a more private garden area with the rural landscape as part of its setting.

Internally it seems likely that the house has undergone several subtle changes, as well as the more obvious porch and bathroom extensions. In the southern ground floor room, the granite flooring and step and recessed cooking area could indicate the position of a larger traditional fireplace and original flooring (Fig 24). Similarly in the northern room, the floor has been covered in concrete, perhaps obscuring original material. The type and extent of flooring may help to establish if Building 4 had always been intended as a house. In the west extension the reasons for the rock protrusion remain unclear, it could simply have been too hard to remove or its function is no longer evident from the surviving material. The adjacent paving slabs and cupboards may also obscure evidence connected to it.

The stairway is quite a complex design for a farmhouse to allow access to all three first floor rooms. The western first floor room is unlikely to be original to the house and there is a strong possibility of an interconnecting door between the north and south rooms. It therefore seems unlikely that the layout of the first floor and the stairway design is original.

Throughout the house the windows are modern PVC casements with a slightly splayed and often larger opening internally and a cement jamb and surround on the external unpainted east elevation. The cement and paint obscures any alterations that may have occurred as a result of the installation of PVC windows, particularly as there is limited or no evidence for lintels, sills or quoining. It is probable that wooden sash windows would have been used.

The farmhouse is likely to be mid 19<sup>th</sup> century in date though there is the possibility of an earlier farmhouse associated with Carninney on or near the site of Building 4. The

dating, sensitive historic setting and internal features mean that Building 4 is historically significant. Its location, aspect and relatively unaltered west elevation in relation to the farmyard contributes significantly to the overall historic character. Impacts as a result of development will affect both the setting and the physical fabric of the building and are likely to be at least minor negative with the potential to be moderately severe, depending on the scale of change.

Building 5 is the only two-storey agricultural building on the site and its simple rectangular form is mapped on the 1840 Tithe meaning it is one of the earliest buildings on the farm (Fig 6). Apart from a small lean-to on the west side, added by 1906, the building has not apparently significantly changed; inspection of the fabric suggests it was always double height. The narrow openings on the ground floor, low door, cobbled floor and dilapidated wooden troughs, point to this building being used as a cow house (Edwards and Lake 2006, 57). However, the upper floor, blocked opening on the north elevation and various recesses in the walls internally indicate that other activities were undertaken, categorising building 5 as a combination barn (Fig 27).

Although in a poor state of repair the surviving interior of the barn may date to the 19<sup>th</sup> century whilst the early date of the building itself contributes quite significantly to the layout of the yard and relationship to the adjacent Carninney Lane (Fig 18). It is a key building in the historic development and character of the farm. Its immediate setting is the surrounding agricultural land and farmyard with surprisingly minimal modern intrusion. The likely impacts of any proposed development are therefore considered moderate negative.

The simple rectangular form of Building 6 is present on the earliest 1840 map (Fig 6). Few alterations are identifiable and the building retains a slate roof (Fig 29). Whilst this may not be original it is certainly more likely to reflect the original covering than the asbestos and metal corrugated sheeting used elsewhere. There are no indications of former use, though evidence may survive under the concrete floor. The significance of Building 6 lies in its simple granite form and location in relation to Buildings 4 and 5, Carninney Lane and the yard (Fig 18). This contribution to the character and its immediate farming related setting make it sensitive to development and so the probable impacts are rated as moderately negative.

There are a significant number of buildings apparently connected to the yard which are not included in this study. These include a house between Buildings 1 and 4 and a collection of smaller buildings, mostly converted to garages, at the northern end of the site. These were excluded because they are in separate ownership and do not form any part of the development proposals. Their location, depiction on historic maps and similar granite construction suggests they were part of Carninney Farm and may be historically significant. Modern conversion or much closer adjacent modern housing has altered their setting and contribution to the appearance of the farm and its character; however, they do continue to form part of the historic yard. The location, uses and layout of the yard is potentially significant in determining the age, type of farming and historical narrative of the site (EH 2014, 9). These buildings are therefore sensitive to further development which could have up to a minor negative impact.

The history and developments of farming has been well documented and characterised by Historic England (formerly English Heritage, 2014). Whilst this is useful in identifying large scale or key architectural elements, Carninney Farm is a small-holding and typically makes use of local materials. Cornwall was known for cattle rearing and whilst there is no evidence to disprove that Carninney didn't conform, there is minimal evidence of internal fittings or classic layouts to fully support such an assertion. Similarly the Bassett family, prominent local landowners part-owned the farm but there are none of the identifiable architectural motifs, evidence of significant investment or forms borrowed from the 'model' farm trend of the later 19<sup>th</sup> century that might be expected to be associated with estate ownership (EH 2014). Carninney was, geographically, an outlier from and part of the wider Bassett estate holdings and is in effect a small vernacular farm. The buildings reflect the specific local requirements of

predominantly pastoral farming and the needs of the farming family and farm hands. Although Carninney is undesignated, the collection of surviving buildings in their yard layout and within a semi-rural historic setting is unusual and significant. In addition, the survival of the wooden and concrete stalls and buildings dating to at least the mid  $19^{\rm th}$  century represents important periods in the wider development of farming constructed on a local scale. These key elements are sensitive to development and impacts could be at least minor negative.

Cumulative impacts to the setting of Carninney Farm are likely as a result of the further addition of modern housing around the perimeter of the farmstead. When in use the farm would have been in a distinctly rural environment and this has already been quite substantially eroded by existing housing. Whilst the proposed development only adds a small quantity of housing to the periphery of an existing settlement, the placing of buildings on Fields A, B and C will remove the remaining rural land from which the farmstead can be seen clearly and appreciated in something approaching its historic setting.

Overall, the impacts are likely to be physical, changes to the historic fabric; visual, changes to the appearance; and setting as a result of the loss of the rural hinterland. Therefore impacts have been rated as moderate negative. However, if the design for the adaptive reuse scheme reflects the traditional characteristics and nature of 19<sup>th</sup> century farm buildings, following Historic England guidelines (eg. Use of traditional materials such as slate and lime mortar and details such as sliding sash windows with small panes and timber structural components), this will minimise the potential impacts. Design details should be described in full as part of the planning application to aid in determining the suitability of the scheme from a historic perspective.

#### 9 Recommendations

The following recommendations have arisen from the unknown sub-surface archaeological potential of the proposed development site, survival of upstanding historic buildings and the likelihood of a range of setting impacts. These recommendations may be needed to inform a planning decision, or as a planning condition prior to the commencement, or in conjunction with, any permitted development.

It is recommended that:

#### Fields

- A geophysical survey is undertaken in Fields A, B and C prior to any development taking place, to further investigate the potential for subsurface prehistoric archaeology and to inform or allow the mitigation of the impacts of the proposed development.
- Other archaeological works such as an evaluation, a watching brief or excavation may be required in response to the results of a geophysical survey, as recommended by the CC Senior Development Officer (Phil Copleston).
- A watching brief or other archaeological works are considered during any alterations to the historic hedgerows as they may preserve archaeological evidence of former land use.
- A mining search is undertaken to establish the extent of historic mining and tin streaming in the area and whether any historic mine workings (including mine shafts), could be present or have an impact to the site development.

#### Farm buildings

• An historic building and photographic survey prior to any works could identify significant parts of the farm complex which should be retained to inform the design, if adaptive reuse is to proceed.

- Archaeological recording should be undertaken during any alterations to the fabric
  of the farm buildings (in particular Buildings 1, 4, 5 and 6), to aid identification of
  their construction date, use and for Buildings 1 and 5, to adequately record
  significant internal features.
- Proposals for the adaptive reuse scheme should retain <u>significant</u> architectural details, further reveal or repair details obscured by poor modern repairs and make use of traditional materials. Significant details include the windows and doors, style and type of stonework, roofline and internal division of space. Use of the various relevant Historic England and Planning Guidance Notes, in particular *The Conversion of Traditional Farm Buildings: A guide to good practice* (English Heritage, 2006) should be made to inform the adaptive reuse scheme.
- The design and aesthetic appearance of the whole development should reflect the character and scale of the farmyard and should be sensitive to the surrounding historic landscape, whilst mitigating the impacts. Whilst adaptive reuse is feasible for all six buildings, the scale of the smaller Buildings 2 and 3 and in particular Building 6, which is likely to be one of the earliest, is particularly key to the character of the farm yard and should be carefully considered in determining the design and use of these structures.

#### 10 Conclusion

The history of Carninney Farm is long and explicitly tied to agriculture with the potential for subsurface archaeology in the associated fields to extend the use of the site into the prehistoric period or add detail to the medieval and post medieval activity already documented. At least three of the farm buildings pre-date the 1840 Tithe Map and contain informative fixtures and fittings. Whilst the remaining buildings are of unknown use, they contribute to the loose yard plan and the character and significance of the farmstead.

There are likely to be significant physical, visual and setting impacts arising from both the proposed housing development and adaptive reuse of the buildings that could be moderately negative for the historic assets. Actions to aid the mitigation of these impacts should be considered throughout the development and planning process.

### 11 References

#### 11.1 Primary sources

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Martyn's 1748 Map of Cornwall

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#### 11.3 Websites

http://www.bgs.ac.uk/data/mapviewers/home.html British Geological Survey geology maps

http://www.HistoricEngland.org.uk/advice Historic England guidance and designation information

http://www.heritagegateway.org.uk/gateway/ Historic England online database of Sites and Monuments Records and Listed Buildings.

http://www.legislation.gov.uk Government documents, Acts and legislation

## 12 Project archive

The CAU project number is 146482

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY.

English Heritage/ADS OASIS online reference: cornwall2-208565



Figure 3: Gascoyne's 1699 Map of Cornwall showing Boskeris and 'Porth Ripter', the name 'Carbis Bay' being a later invention.

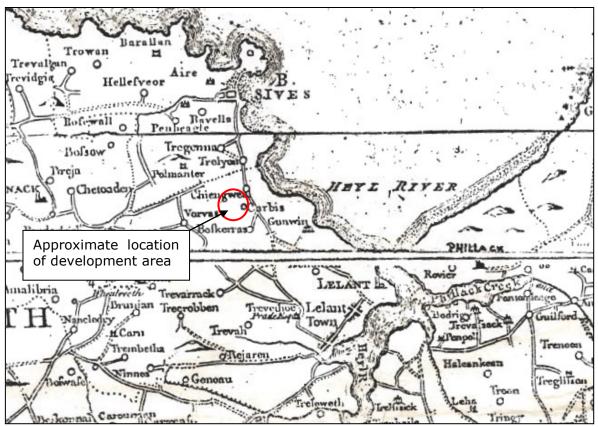


Figure 4: Martyn's 1748 map depicting Chiengweal, Carbis and Boskerris.

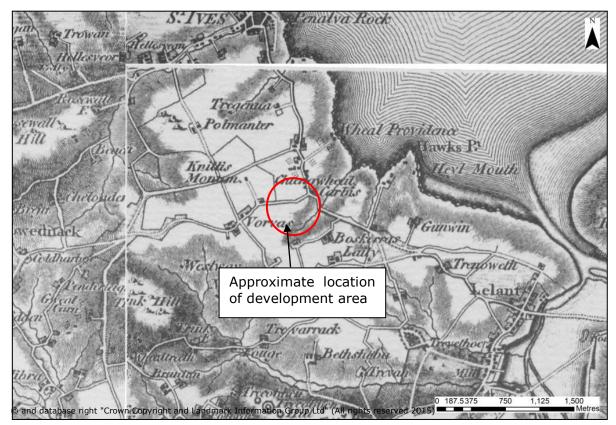


Figure 5: The c1803 OS map showing the rural site location and the still undeveloped Carbis Bay area.

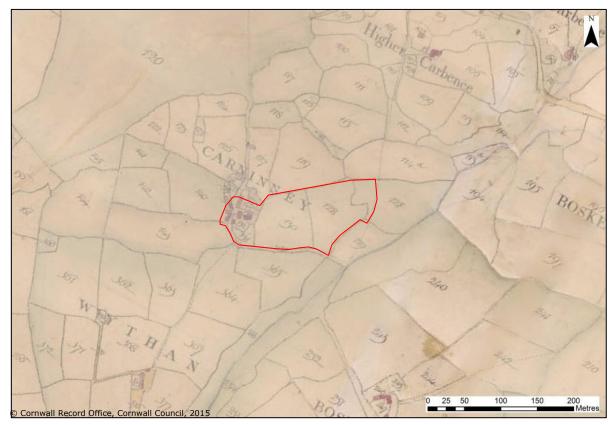


Figure 6: The 1840 Tithe Map for Lelant parish showing the small rural settlements, some of the surviving farm buildings and others no longer upstanding. The overlaid red outline is the approximate position of the development area taken from modern mapping.

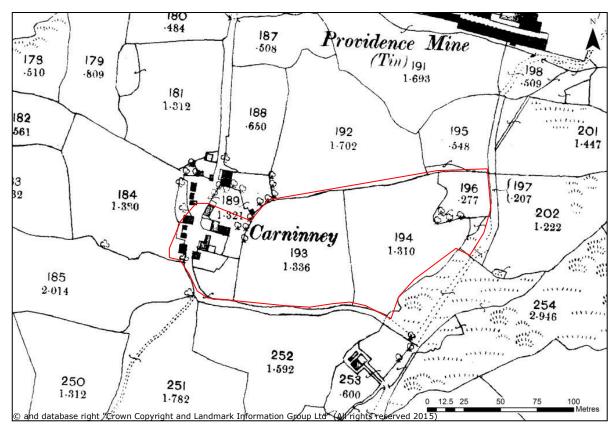


Figure 7: The 1875 OS map highlighting the rural landscape and farm buildings of Carninney, some of which survive in the same layout. The overlaid red outline shows the approximate development area.

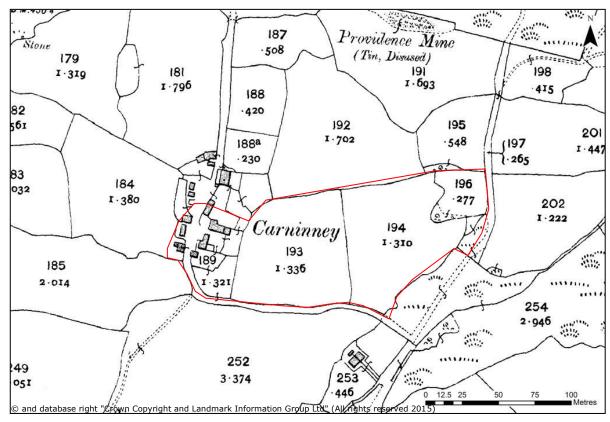


Figure 8: The 1907 OS map which shows several changes to the buildings compared to the 1875 extract above and is very similar to the modern layout.

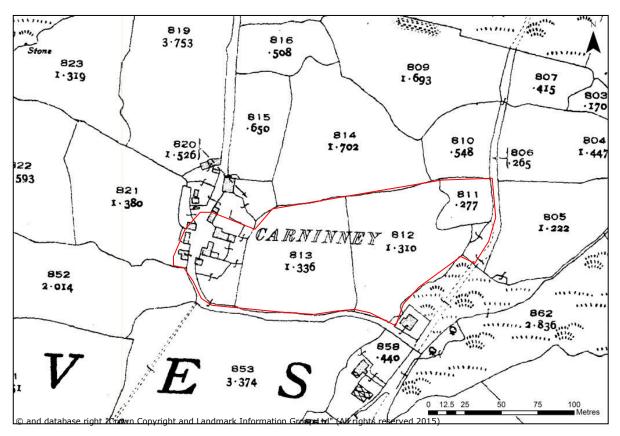


Figure 9: The 1932 OS map showing few changes since 1907 except for buildings to the southeast of the proposed development area.

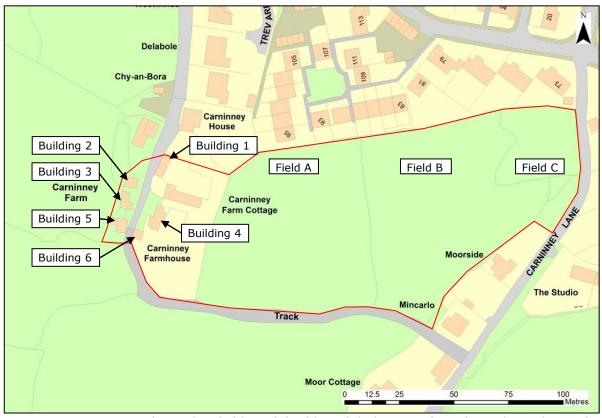


Figure 10: Map to show the field and building labels as referred to throughout the report.

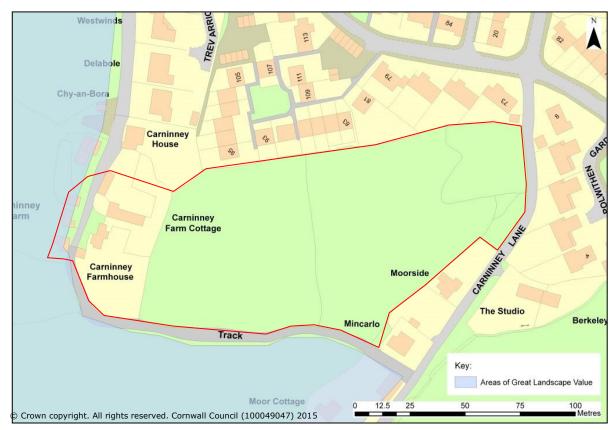


Figure 11: Modern overlay map showing the immediately adjacent Area of Great Landscape Value.

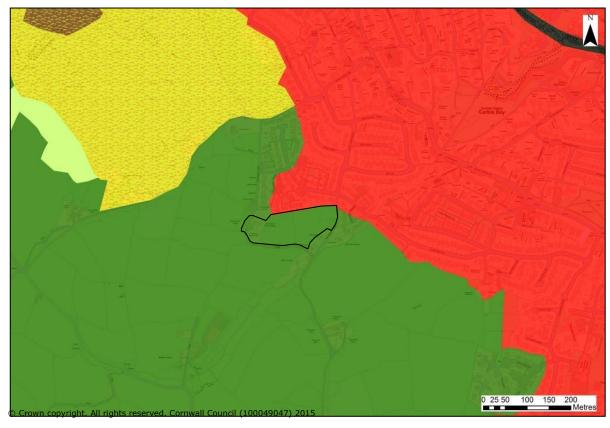


Figure 12: Modern overlay map showing the proposed development site within the Farmland: Prehistoric character area, in green, and adjacent to the red  $20^{th}$  century settlement.

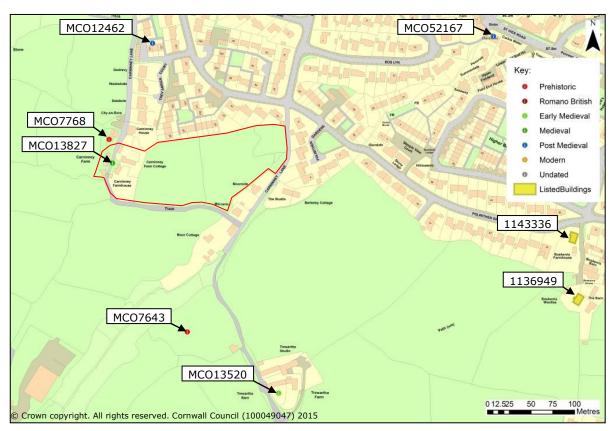


Figure 13: Modern overlay map to show key Listed Buildings and sites recorded in the HER including Carninney Farm and the adjacent possible prehistoric enclosure.



Figure 14: This aerial photograph from 2005 clearly shows the relationship between the fields and farm buildings at Carninney and the modern housing to the north.



Figure 15: Field A and the wide ranging view to the northeast including Field B, modern housing and St Ives Bay.



Figure 16: The rural view southwest from Field B with the few modern houses in the middle ground and a converted barn in the top left of the image.



Figure 17: Field C with considerable banks enclosing the field and obscuring views out, particularly to the southwest.



Figure 18: Carninney Farm yard and Carninney Lane continuing south beyond the yard adjacent to the car with Building 1 in the foreground and Buildings 4 and 6 in the background.



Figure 19: The north and west elevations of Building 1. Note the lean-to, steeply pitched roof and blocked opening obscured by ivy.



Figure 20: The interior of Building 1 with concrete stalls and floor and a small opening in the east wall.



Figure 21: The east and north elevation of Building 2 with a modern doorway and additional walling on the north side.



Figure 22: Building 3 looking southwest to show the modern extension and use of concrete and granite.



Figure 23: The west and south rear elevations of Building 4 with the modern bathroom extension to the south and partly historic west extension.



Figure 24: The southern ground floor room of Building 4 with the recessed cooking area. Note also the splayed window, passage to the bathroom and granite steps under the oven.



Figure 25: The view east from the upper floor window of Building 4 over the proposed development area and Carbis Bay housing to St Ives Bay and Carn Brea.



Figure 26: The first floor southern room of Building 4 looking north towards the dividing wall. The beige patch helpfully indicates a wood panel that may block a former doorway between the two upper storey rooms.



Figure 27: The eastern elevation of Building 5. Note the stable door with cobbled path, slit ventilation on the ground floor and larger window on the upper storey.



Figure 28: The interior of Building 5 with wooden stalls, cobbled floor and recesses in the rear west wall. At the top of the image the wooden first floor is visible.



Figure 29: The north elevation of Building 6 with the high threshold step and slate roof.



Figure 30: The painted interior of Building 6 with exposed roof and concrete floor.